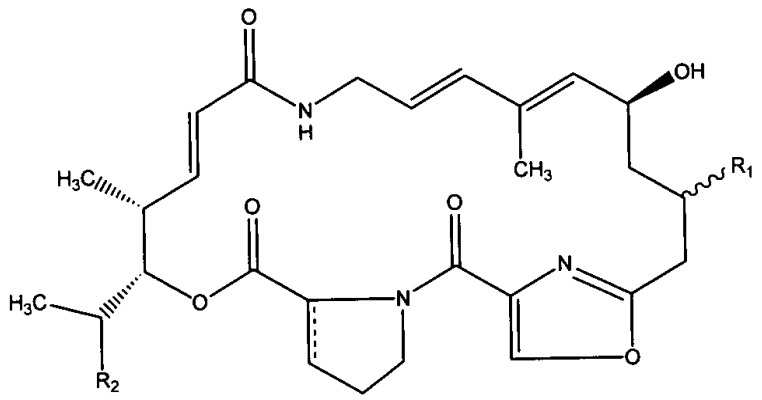
CLAIMS:

Claims 1-16 (previously canceled).

17. (previously amended) A group A streptogramin derivative chosen from group A streptogramin derivatives of formula (I), salts thereof, and mixtures of stereoisomers of any of the foregoing:



(I)

wherein:

- R_1 is chosen from -NR'R" groups, wherein
  - R' is chosen from a hydrogen atom and a methyl group, and
  - R" is chosen from
    - (i) a hydrogen atom,
    - (ii) alkyl groups,
    - (iii) cycloalkyl groups,
    - (iv) an allyl group,
    - (v) a propynyl group,
    - (vi) a benzyl group,

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(vii) -OR"' groups, wherein R"' is chosen from a hydrogen atom, alkyl groups, cycloalkyl groups, an allyl group, a propynyl group, and a benzyl group, and

(viii) $-NR_3R_4$ groups, wherein

- R_3 and R_4 are each a methyl group, or
- R_3 and R_4, which are identical or different, form, together with the nitrogen atom to which they are attached, a saturated or unsaturated 4- to 5-membered heterocyclyl group, wherein one of said members, in addition to said nitrogen atom, may be an atom chosen from an oxygen atom, a sulphur atom, and a nitrogen atom,

- R_2 is chosen from a hydrogen atom, a methyl group, and an ethyl group,

- the bond ---- is a single bond or a double bond,

- unless otherwise stated, said alkyl groups are chosen from straight and branched C_1-C_6 alkyl groups,

- unless otherwise stated, said cycloalkyl groups are chosen from C_3-C_4 cycloalkyl groups,

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- when said R" is chosen from a hydrogen atom, alkyl groups, cycloalkyl groups, an allyl group, a propynyl group, and a benzyl group:

said group A streptogramin derivatives are chosen such that the carbon bearing said R_1 is of the R configuration,

said salts are chosen such that the carbon bearing said R_1 is of the R configuration, and

said mixtures are chosen such that said mixtures comprise at least one stereoisomer, wherein the carbon bearing said R_1 is of the R configuration, and at least one stereoisomer, wherein the carbon bearing said R_1 is of the S configuration, and wherein said R configuration is predominant, and

- when R" is chosen from said -OR"' groups and said -NR_3R_4 groups:

said group A streptogramin derivatives are chosen such that the carbon bearing said R_1 is of the R configuration or the S configuration,

said salts are chosen such that the carbon bearing said R_1 is of the R configuration or the S configuration, and

said mixtures are chosen such that said mixtures comprise at least one stereoisomer, wherein the carbon bearing said R_1 is of the R configuration, and at least one stereoisomer, wherein the carbon bearing said R_1 is of the S configuration.

18. (previously amended) A group A streptogramin derivative according to claim 17, wherein:

- R_1 is chosen from -NR'R" groups, wherein

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- R' is chosen from a hydrogen atom and a methyl group, and
- R" is chosen from
  - (i) a hydrogen atom,
  - (ii) alkyl groups,
  - (iii) cycloalkyl groups,
  - (iv) an allyl group,
  - (v) a propynyl group,
  - (vi) a benzyl group,
  - (vii) -OR"' groups, wherein R"' is chosen from C_1-C_6 alkyl groups, an allyl group, and a propynyl group,
  - (viii) $-NR_3R_4$ groups, wherein
    - R_3 and R_4 are each a methyl group, or
    - R_3 and R_4, which are identical or different, form, together with the nitrogen atom to which they are attached, a saturated or unsaturated 4- to 5-membered heterocyclyl group, wherein one of said members, in addition to said nitrogen atom, may be an atom chosen from an oxygen atom, a sulphur atom, and a nitrogen atom,

- R_2 is chosen from a hydrogen atom, a methyl group, and an ethyl group,

- the bond ---- is a single bond or a double bond,

- when said R" is chosen from a hydrogen atom, alkyl groups, cycloalkyl groups, an allyl group, a propynyl group, and a benzyl group, said group A streptogramin

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derivatives and said salts thereof are chosen such that the carbon bearing said R_1 is of the R configuration and said mixtures comprise stereoisomers, wherein the carbon bearing R_1 is of the R configuration or the S configuration and wherein said R configuration is predominant, and

- when R" is chosen from said -OR"' groups and said -NR_3R_4 groups, said group A streptogramin derivatives and said salts thereof are chosen such that the carbon bearing said R_1 is of the R configuration or the S configuration and said mixtures comprise stereoisomers, wherein the carbon bearing R_1 is of the R configuration or the S configuration.

19. (previously amended) A group A streptogramin derivative according to claim 17, wherein:

- R_1 is chosen from -NR'R" groups, wherein
  - R' is chosen from a hydrogen atom and a methyl group, and
  - R" is chosen from
    - (i) a hydrogen atom,
    - (ii) C_1-C_4 alkyl groups,
    - (iii) cycloalkyl groups,
    - (iv) an allyl group,
    - (v) a propynyl group,
    - (vi) a benzyl group,
    - (vii) -OR"' groups, wherein R"' is chosen from C_1-C_3 alkyl groups, an allyl group, and a propynyl group,
    - (viii) -NR_3R_4 groups, wherein

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- R_3 and R_4, which are identical or different, form, together with the nitrogen atom to which they are attached, a 5-membered saturated heterocyclyl group,

- R_2 is chosen from a methyl group and an ethyl group,

- the bond ---- is a single bond or a double bond,

- when said R" is chosen from a hydrogen atom, alkyl groups, cycloalkyl groups, an allyl group, a propynyl group, and a benzyl group, said group A streptogramin derivatives and said salts thereof are chosen such that the carbon bearing said R_1 is of the R configuration and said mixtures comprise stereoisomers, wherein the carbon bearing R_1 is of the R configuration or the S configuration and wherein said R configuration is predominant, and

- when R" is chosen from said -OR"' groups and said -NR_3R_4 groups, said group A streptogramin derivatives and said salts thereof are chosen such that the carbon bearing said R_1 is of the R configuration or the S configuration and said mixtures comprise stereoisomers, wherein the carbon bearing R_1 is of the R configuration or the S configuration.

20. (previously amended) A group A streptogramin derivative according to claim 17, wherein said group A streptogramin is (16R)-16-dimethylamino-16-deoxopristinamycin II_A or a salt thereof:

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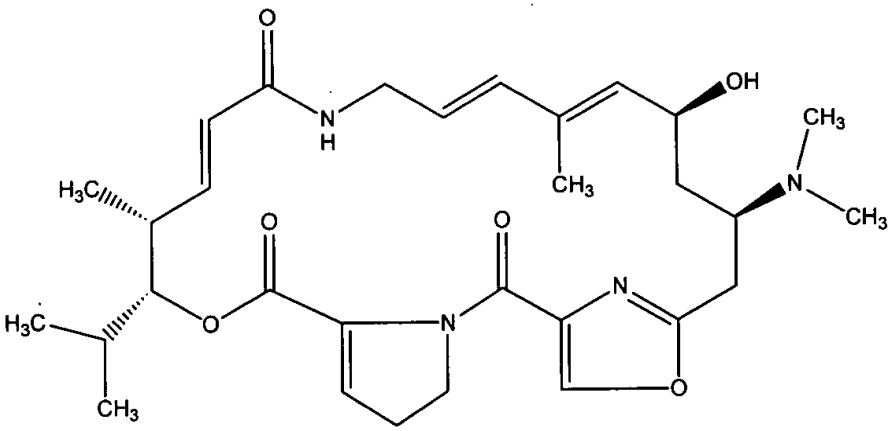
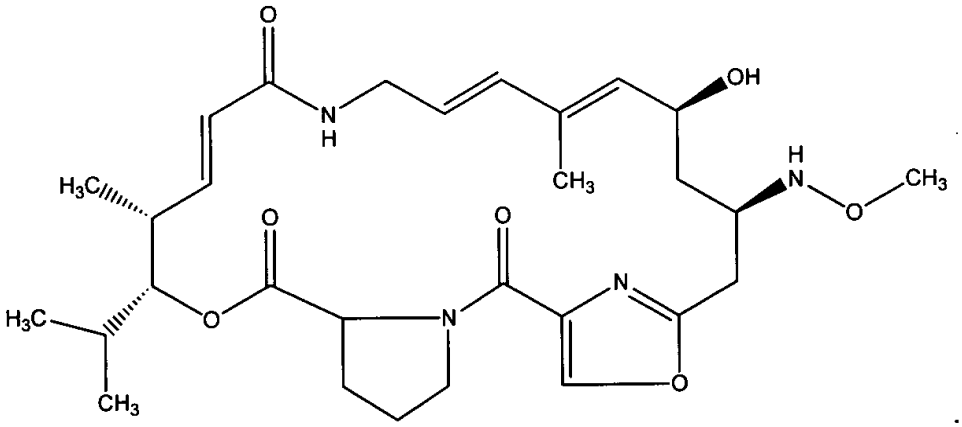


21. (previously amended) A group A streptogramin derivative according to claim 17, wherein said group A streptogramin is (16R)-16-methoxyamino-16-deoxopristinamycin II_B or a salt thereof:



22. (previously amended) A group A streptogramin derivative according to claim 17, wherein said group A streptogramin is (16R)-16-ethoxyamino-16-deoxopristinamycin II_B or a salt thereof:

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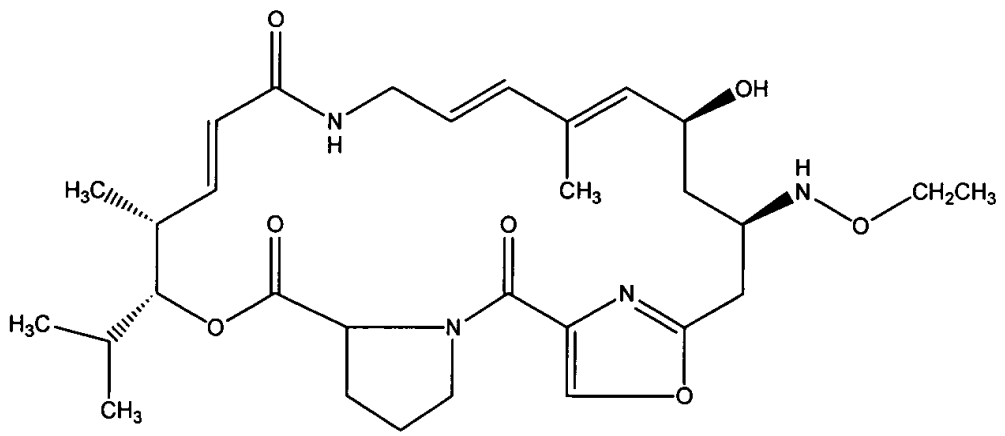
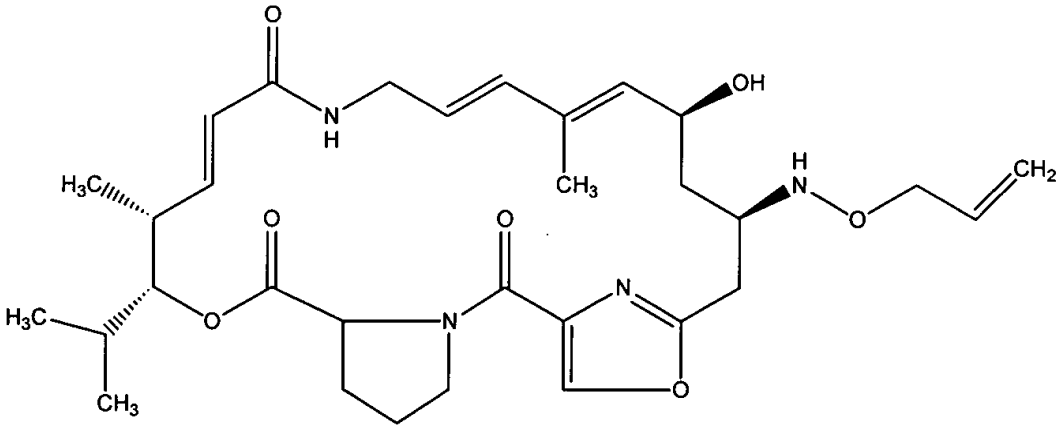


23. (previously amended) A group A streptogramin derivative according to claim 17, wherein said group A streptogramin is (16R)-16-allyloxyamino-16-deoxopristinamycin II_B or a salt thereof:



24. (previously amended) A group A streptogramin derivative according to claim 17, wherein said group A streptogramin is (16R)-16-methoxyamino-16-deoxopristinamycin II_A or a salt thereof:

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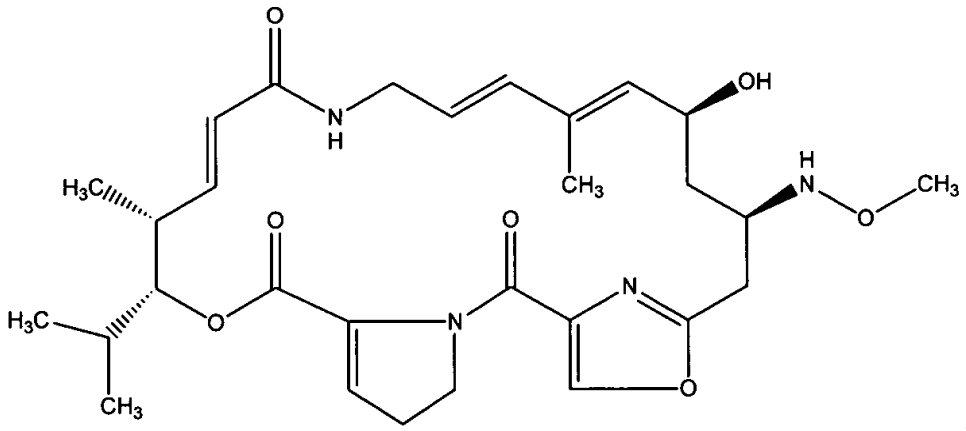


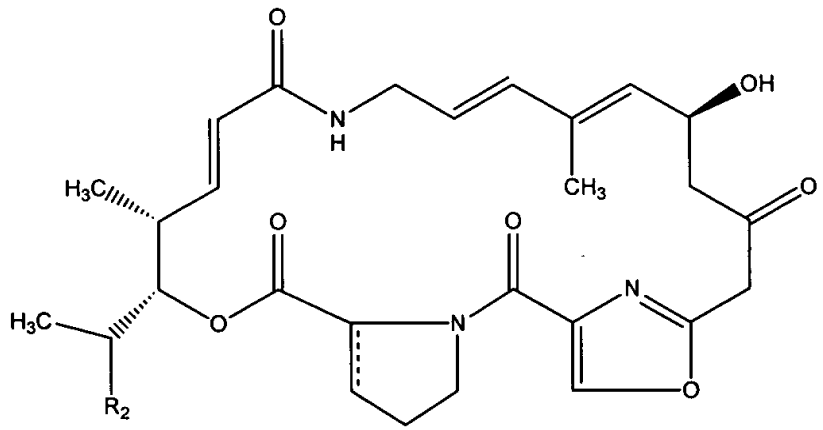
25. (previously amended) A process for preparing a group A streptogramin derivative according to claim 17, said process comprising:

(a) preparing a group A streptogramin derivative, wherein R' is a hydrogen atom, by reacting for a time and under conditions to form a group A streptogramin according to claim 17, in the presence of a reducing agent, an amine of formula (III):

H_2N-R" (III)

wherein R" is defined as in claim 17

with a natural pristinamycin of formula (II):



(II)

wherein R_2 is defined as in claim 17,

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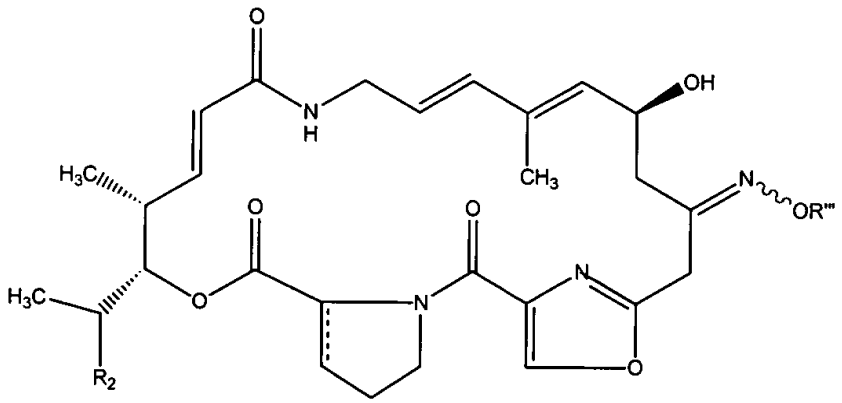
(b) optionally reacting said group A streptogramin derivative of formula (I), wherein R' is a hydrogen atom, with formaldehyde or a formaldehyde derivative to generate formaldehyde in situ for a time and under conditions to form a second intermediate compound, and then reacting said second intermediate compound with a reducing agent for a time and under conditions to form a group A streptogramin derivative, wherein R' is a methyl group, and

(c) optionally converting said group A streptogramin derivative of formula (I), prepared by (a) or (b) above, to a salt and separating said salt, wherein the carbon bearing said R_1 is of the R configuration, or optionally separating said group A streptogramin derivative, wherein the carbon bearing said R_1 is of the R configuration.

26. (currently amended) A process for preparing a group A streptogramin derivative according to claim 17, said process comprising:

(a) preparing an intermediate compound of formula (IV):



(IV)

wherein R_2 and R''' are defined as in claim 17

by reacting an amine of formula (III):

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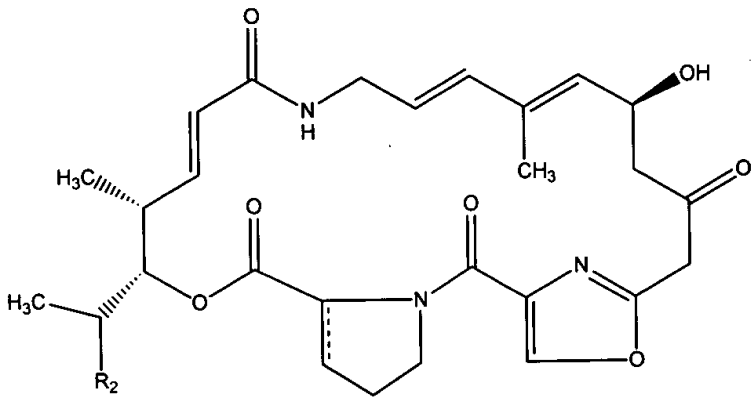
H_2N-R" (III)

wherein R" is chosen from –OR"' groups, and wherein said R"' groups are defined as in claim 17

with a natural pristinamycin of formula (II):



(II)

wherein R_2 is defined as in claim 17,

for a time and under conditions to form said intermediate compound of formula (IV),

(b) isolating said intermediate compound of formula (IV),

(c) reacting said isolated intermediate compound of formula (IV) with a reducing agent for a time and under conditions to form a group A streptogramin derivative of formula (I), wherein R' is a hydrogen atom,

(d) optionally reacting said group A streptogramin derivative of formula (I), wherein R' is a hydrogen atom, with formaldehyde or a formaldehyde derivative ~~capable~~

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~~of generating~~ to g nerat formaldehyde in situ for a time and under conditions to form a second intermediate compound, and then reacting said second intermediate compound with a reducing agent for a time and under conditions to form a group A streptogramin derivative of formula (I), wherein R' is a methyl group, and

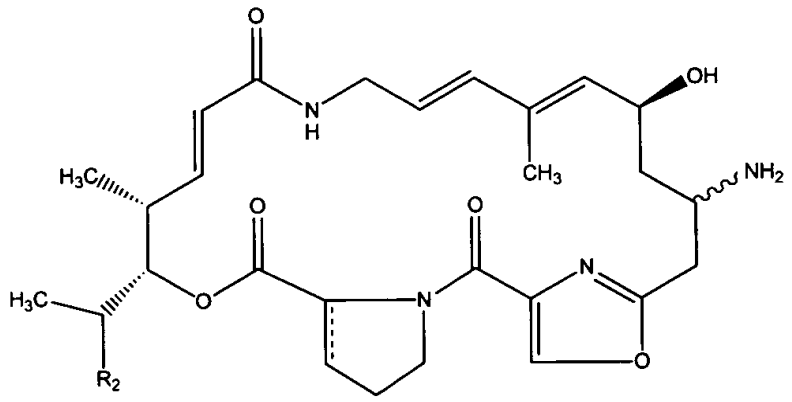
(e) optionally converting said group A streptogramin derivative of formula (I), prepared by (c) or (d) above, to a salt and/or separating its R-epimer.

27. (previously added) A process for preparing a group A streptogramin derivative according to claim 17, said process comprising:

(a) preparing a group A streptogramin derivative, wherein R' is a hydrogen atom, by reacting, in the presence of a reducing agent:

(1) a ketone, chosen according to a desired R" group, wherein said R" is as defined in claim 17, with

(2) an amine-containing derivative of formula (V):



(V)

wherein R_2 is as defined in claim 17,

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(b) optionally reacting said group A streptogramin derivative of formula (I), wherein R' is a hydrogen atom, with formaldehyde or a formaldehyde derivative capable of generating formaldehyde in situ to form a second intermediate compound, and then reacting said second intermediate compound with a reducing agent to form a group A streptogramin derivative, wherein R' is a methyl group, and

(c) optionally converting said group A streptogramin derivative of formula (I), prepared by (a) or (b) above, to a salt and/or separating its R-epimer.

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28. (currently amended) A composition comprising at least one group A streptogramin derivative of formula (I) or salt thereof according to claim 17 and at least one group B streptogramin derivative **chosen from natural group B streptogramin components and semisynthetic group B streptogramin components**.

29. (canceled).

30. (previously added) A composition according to claim 28, wherein said at least one group B streptogramin derivative is chosen from pristinamycin I_A, pristinamycin I_B, pristinamycin I_C, pristinamycin I_D, pristinamycin I_E, pristinamycin I_F, pristinamycin I_G, virginiamycin S_1, virginiamycin S_3, virginiamycin S_4, vernamycin B, vernamycin C, and etamycin.

31. (previously added) A composition according to claim 28, wherein said at least one group B streptogramin derivative is chosen from semisynthetic group B streptogramin derivatives of formula (A):

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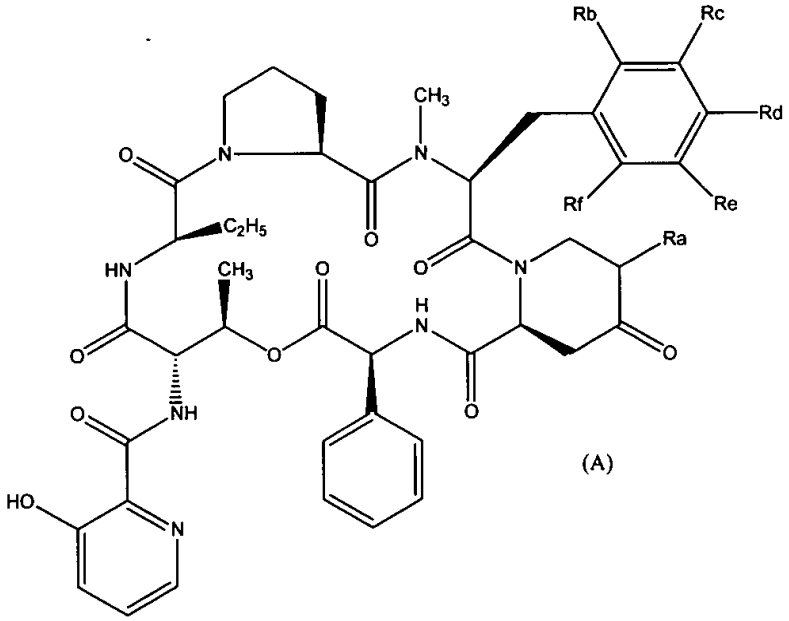

wherein:

(1) - Rb, Rc, Re, and Rf are each a hydrogen atom;

- Rd is chosen from a hydrogen atom and a dimethylamino group; and

- Ra is chosen from:

(A) $-CH_2R'a$ groups, wherein R'a is chosen from:

(i) a 3-pyrrolidinylthio group,

(ii) a 3-piperidylthio group,

(iii) a 4-piperidylthio group,

- wherein said groups (i)-(iii) may be unsubstituted or substituted with at least one group chosen from alkyl groups, and

(iv) alkylthio groups which are substituted with 1 or 2 groups chosen from:

(a) a hydroxysulfonyl group,

(b) alkylamino groups,

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(c) dialkylamino groups, which may be unsubstituted or substituted with at least one group chosen from a mercapto group or dialkylamino groups,

(d) a piperazine ring, a morpholino group, a thiomorpholino group, a piperidino group, a 1-pyrrolidinyl group, a 2-piperidyl group, a 3-piperidyl group, and a 4-piperidyl group, a 2-pyrrolidinyl group, and a 3-pyrrolidinyl group, each of which may be unsubstituted or substituted with alkyl, and

(B) =CHR'a groups, wherein R'a is chosen from:

(i) a 3-pyrrolidinylamino group,

(ii) a 3-piperidylamino group and a 4-piperidylamino group,

(iii) a 3-pyrrolidinyloxy group,

(iv) a 3-piperidyloxy group and a 4-piperidyloxy group,

(v) a 3-pyrrolidinylthio group,

(vi) a 3-piperidylthio group and a 4-piperidylthio group,

- wherein said groups (i)-(vi) may be unsubstituted or substituted with at least one group chosen from alkyl groups,

(vii) alkylamino groups,

(viii) alkyloxy groups, and

(ix) alkylthio groups which are substituted with 1 or 2 groups chosen from:

(a) a hydroxysulfonyl group,

(b) alkylamino groups,

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(c) dialkylamino groups unsubstituted or substituted with at least one group chosen from dialkylamino groups,

(d) trialkylammonio groups,

(e) a 4-imidazolyl group, and a 5-imidazolyl group, each of which may be unsubstituted or substituted with alkyl,

(f) a piperazine ring, a morpholino group, a thiomorpholino group, a piperidino group, a 1-pyrrolidinyl group, a 2-piperidyl group, a 3-piperidyl group, a 4-piperidyl group, a 2-pyrrolidinyl group, and a 3-pyrrolidinyl group, each of which may be unsubstituted or substituted with alkyl,

(C) a 3-quinuclidinylthiomethyl group, and

(D) a 4-quinuclidinylthiomethyl group; or

(2) - Ra is a hydrogen atom, and

(a) - Rb, Re, and Rf are each a hydrogen atom, and

- Rd is chosen from a $-NHCH_3$ group and a $-N(CH_3)_2$ group, and Rc is chosen from a chlorine atom and a bromine atom, or when Rd is a $-N(CH_3)_2$ group, Rc is chosen from (C3-C5) alkenyl groups, or

(b) - Rb, Rd, Re, and Rf are each a hydrogen atom, and

- Rc is chosen from halogen atoms, aminomonoalkyl groups, aminodialkyl groups, alkyloxy groups, a trifluoromethyloxy group, thioalkyl groups, (C_1-C_3) alkyl groups, and trihalomethyl groups, or

(c) - Rb, Rc, Re, and Rf are each a hydrogen atom, and

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- Rd is chosen from halogen atoms, an ethylamino group, a diethylamino group, a methylethylamino group, alkyloxy groups, a trifluoromethyloxy group, thioalkyl groups, (C_1-C_6) alkyl groups, aryl groups, and trihalomethyl groups, or

(d) - Rb, Re, and Rf are each a hydrogen atom,

- Rc is chosen from halogen atoms, aminomonoalkyl groups, aminodialkyl groups, alkyloxy groups, a trifluoromethyloxy group, thioalkyl groups, and (C_1-C_3) alkyl groups, and
- Rd is chosen from halogen atoms, an amino group, aminomonoalkyl groups, aminodialkyl groups, alkyloxy groups, a trifluoromethyloxy group, thioalkyl groups, (C_1-C_6) alkyl groups, and trihalomethyl groups, or

(e) - Rc, Re, and Rf are each a hydrogen atom, and

- Rb and Rd are each a methyl group.

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32. (currently amended) A **pharmaceutical** composition comprising at least one group A streptogramin derivative of formula (I) or salt thereof according to claim 17, wherein said composition comprises at least one pharmaceutically acceptable diluent, at least one pharmaceutically acceptable adjuvant, or at least one pharmaceutically acceptable diluent and at least one pharmaceutically acceptable adjuvant.

33. (currently amended) A **pharmaceutical** composition comprising at least one group A streptogramin derivative of formula (I) or salt thereof according to claim 17 and at least one group B streptogramin derivative, wherein said composition optionally comprises at least one pharmaceutically acceptable diluent, at least one

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pharmaceutically acceptable adjuvant, or at least one pharmaceutically acceptable diluent and at least one pharmaceutically acceptable adjuvant.

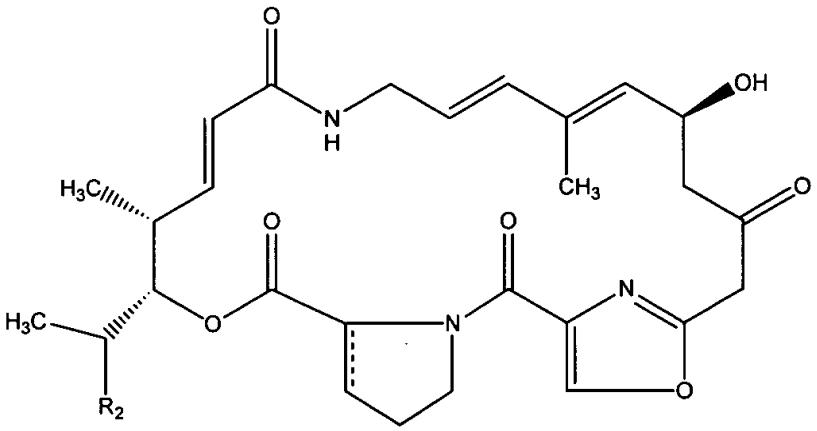
34. (previously added) A process for preparing a group A streptogramin derivative according to claim 17, said process comprising:

(a) preparing a group A streptogramin derivative, wherein R' is a hydrogen atom, by reacting for a time and under conditions to form a group A streptogramin according to claim 17, in the presence of a reducing agent, an amine of formula (III):

H_2N-R" (III)

wherein R" is defined as in claim 17

with a natural pristinamycin of formula (II):



(II)

wherein R_2 is defined as in claim 17,

(b) optionally reacting said group A streptogramin derivative of formula (I), wherein R' is a hydrogen atom, with formaldehyde or a formaldehyde derivative to generate formaldehyde in situ for a time and under conditions to form a second intermediate compound, and then reacting said second intermediate compound

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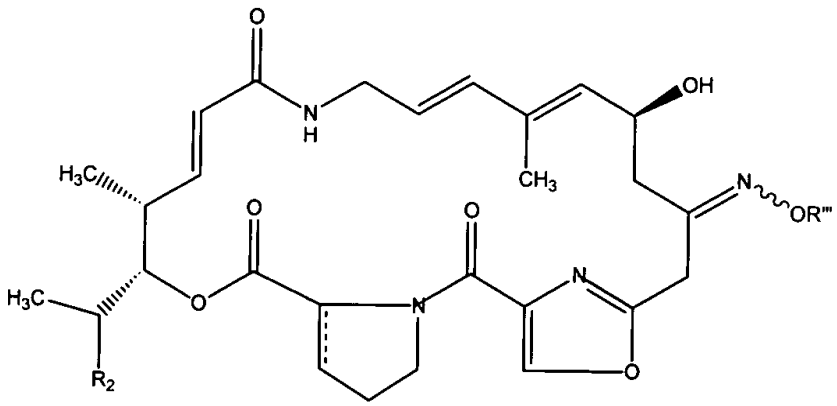
with a reducing agent for a time and under conditions to form a group A streptogramin derivative, wherein R' is a methyl group,

(c) optionally converting said group A streptogramin derivative of formula (I), prepared by (a) or (b) above, to a salt and separating said salt, wherein the carbon bearing said R_1 is of the R configuration, or optionally separating said group A streptogramin derivative, wherein the carbon bearing said R_1 is of the R configuration, and

(d) isolating said group A streptogramin derivative of formula (I) or salt thereof, prepared by (a), (b), or (c) above.

35. (previously added) A process for preparing a group A streptogramin derivative according to claim 17, said process comprising:

(a) preparing an intermediate compound of formula (IV):



(IV)

wherein R_2 and R''' are defined as in claim 17

by reacting an amine of formula (III):

H_2N-R" (III)

wherein R" is chosen from –OR''' groups, and wherein said R''' groups are defined as in claim 17

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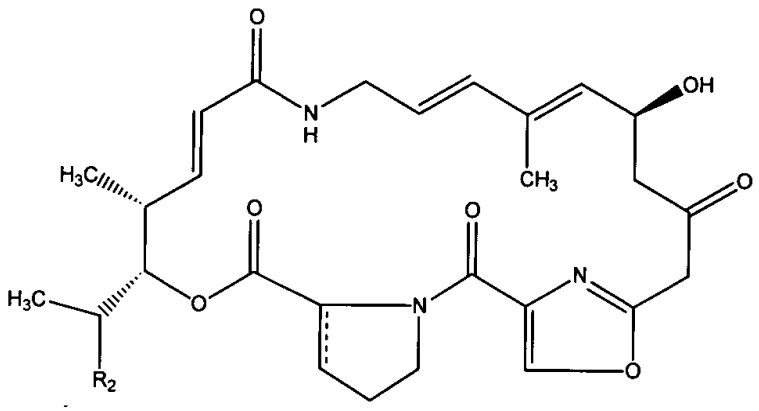
with a natural pristinamycin of formula (II):



(II)

wherein R_2 is defined as in claim 17,

for a time and under conditions to form said intermediate compound of formula (IV),

(b) isolating said intermediate compound of formula (IV),

(c) reacting said isolated intermediate compound of formula (IV) with a reducing agent for a time and under conditions to form a group A streptogramin derivative of formula (I), wherein R' is a hydrogen atom,

(d) optionally reacting said group A streptogramin derivative of formula (I), wherein R' is a hydrogen atom, with formaldehyde or a formaldehyde derivative capable of generating formaldehyde in situ for a time and under conditions to form a second intermediate compound, and then reacting said second intermediate compound with a reducing agent for a time and under conditions to form a group A streptogramin derivative of formula (I), wherein R' is a methyl group,

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(e) optionally converting said group A streptogramin derivative of formula (I), prepared by (c) or (d) above, to a salt and/or separating its R-epimer, and

(f) isolating said group A streptogramin derivative of formula (I) or salt thereof, prepared by (c), (d), or (e) above.

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